Covington Detention Basins Project

What is storm water runoff and why do I pay SD1 for its management?
When precipitation falls on hard surfaces like rooftops, streets and parking lots, it is unable to soak into the ground. Trees and other vegetation naturally soak up and slow the flow of storm water from rainfall and snow melt, but in their absence, the water "runs off" these hard surfaces, creating problems like flooding and erosion. As it flows over the land, storm water also picks up any trash, debris and pollutants in its path and carries them to nearby creeks and rivers, polluting the water the community uses for recreation and as a drinking water source.

The storm water service charge on your SD1 bill is a flat fee that supports the management of flooding, erosion and water quality issues caused by storm water runoff in SD1's storm water service area, which encompasses 29 cities and three counties in the Northern Kentucky region. Because everyone with a roof, driveway or other impervious surface on their property contributes to these issues, SD1 calculated the average amount of paved or impervious area on residential properties in the region they serve, and they charge property owners a standard monthly fee based on this average.

What is a detention basin and how does it control storm water runoff?
A detention basin is a type of natural storm water control that effectively manages storm water runoff and protects water quality by allowing nature to do what nature does best. Detention basins are large vegetated depressions designed to collect and hold great quantities of storm water runoff from impervious surfaces. Detention basins typically do not contain any water during dry weather. When it rains, storm water is carried into the basin through a pipe, held there like water in a bowl and then slowly released over a period of time through another pipe, effectively controlling flooding and erosion. Additionally, the grass and other vegetation in the basin provide some initial filtering of pollutants from the water before it drains. Typically, all water channeled into a detention basin will drain into a nearby stream within 24 to 36 hours of the rain event.

How will detention basins relieve flooding in Covington?
The City of Covington is partnering with SD1 on a project to reduce flooding in the Peaselburg, Ray's Lane and Point Benton areas of Covington with the construction of a new detention basin on Ray's Lane; improvements to existing basins near Monte Road, Point Benton and Benton Road; and construction of a new basin in place of the ball field at the intersection of Highland Avenue and Benton Road. The new detention basins and the existing detention basins are located in strategic areas uphill from the Peaselburg area and are designed to catch the flow of storm water before it reaches the lower-elevation neighborhoods of Covington, including Peaselburg. Catching the storm water at higher elevations will reduce flooding in lower-lying areas, as well as the amount of storm water entering the combined sewer system in Covington.

Why is my basement prone to flooding when it rains?
In many parts of SD1's service area, the pipes that carry the community's wastewater, the dirty water that goes down drains and toilets inside homes and businesses, also collect and carry storm water from rainfall and snow melt. These "combined" sewer systems, which are usually

located in the older communities in Northern Kentucky along the Ohio River, were designed to handle storm water and wastewater flows 100 years ago when these communities, including Covington, were surrounded mostly by woods and farmland. Over the years, as more impervious surface has been added to the landscape, these combined systems have become overloaded. When it rains heavily, a couple of inches over a short period of time, the pipes can become overwhelmed by excess storm water, causing them to back up and overflow into basements, yards, streets and the river.

How will this project help address flooding in Covington?
The basins are being constructed to accommodate an hourly rainfall of up to 3 inches, meaning this project will reduce flooding and basement backups due to large rain events in Covington. The basin improvements will not completely solve the flooding issues in and around Peaselburg, but they will be a first step toward fixing the problem. Because the basins will not eliminate flooding issues in the area, the City and SD1 are continuing to explore additional solutions.

When will this project begin?
Construction on the basins will occur in two phases. The first phase is scheduled to begin in the fall of 2014 and will reduce flooding along Ray's Lane, Highland Avenue and Euclid Avenue. The second phase is scheduled to begin in the spring of 2015 and is designed to further alleviate flooding in the areas of Benton Avenue, Highland Avenue and Euclid Avenue.